

AMENDMENTS TO THE CLAIMS

The following listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A method for promoting tissue regeneration on wound surfaces (1), in particular on wound surfaces which are to intergrow with other wound surfaces or with an implant, or are to heal into a tissue surface, ~~wherein mechanical oscillation is coupled into the wound surface (1) with the help of a treatment instrument (2) or an implant (5)~~the method comprising the steps of:

contacting the wound surfaces with a treatment instrument (2) or with the implant, and

coupling mechanical oscillation into the wound surfaces (1) by mechanically oscillating the treatment instrument or implant with the aid of an oscillation drive,

wherein an amplitude-transforming and/or direction-transforming element (20) is arranged between the treatment instrument or the implant and the oscillation drive, and wherein, for selecting one of a plurality of possible amplitude- and/or direction-transformations, the amplitude-transforming and/or direction-transforming element (20) comprises a plurality of coupling locations and the oscillation drive is coupled to a selected one thereof.

2. (Previously Presented) The method according to claim 1, wherein the mechanical oscillation is ultrasonic oscillation having a frequency of 1 to 200 kHz.

3. (Currently Amended) The method according to claim 1, wherein, in the step of contacting, a contact surface of the treatment instrument (2) is brought into contact with the wound surface (1) and ~~mechanical oscillation is applied to the treatment instrument, wherein the treatment instrument (2) is moved or is stationery in relation to the wound surface during treatment~~wherein, during the step of coupling, the treatment instrument (2) is moved in relation to the wound surface.

4. (Currently Amended) The method according to claim 1, wherein, in the step of contacting, a contact surface of the implant (5) is brought into contact with the wound surface (1), and wherein, during the step of coupling, ~~mechanical oscillation is allied to the implant (5) is moved into a final implanted position during an implanting movement relative to the wound surface (1) and/or after the implanting movement when the implant is in its implanted condition.~~

5. (Cancelled)

6. (Currently Amended) The method according to claim 4₁, wherein the implant (5) is positioned in an opening of the tissue and is then set into oscillation.

7. (Cancelled)

8. (Cancelled)

9. (Cancelled)

10. (Previously Presented) The method according to claim 1, wherein the wound surface (1) is a bone tissue surface.

11. (Currently Amended) The method according to claim 4~~6~~, wherein the implant (5) is a dental implant which is positioned in an opening of a jawbone.

12. (Currently Amended) A device for promoting tissue regeneration on wound surfaces (1), in particular on wound surfaces which are to intergrow with other wound surfaces or with an implant, or are to heal into a tissue surface, wherein mechanical oscillation is coupled into the wound surface with the aid of a treatment instrument or the implant, wherein the device comprises~~comprising~~:

an oscillation drive,

an amplitude-transforming and/or direction-transforming element (20), and

wherein the treatment instrument (2) or implant (5) is coupled or couplable to the amplitude-transforming and/or direction-transforming element (20),

wherein for selecting one of a plurality of possible amplitude and/or direction-transformations, the amplitude-transforming and/or direction-transforming element (20) comprises a plurality of coupling locations to which the oscillation drive is selectively couplable, and

wherein the amplitude-transforming and/or direction-transforming element transforms the amplitude or direction of the mechanical oscillation from the oscillation drive when the oscillation drive and treatment instrument or implant are

coupled to the amplitude-transforming and/or direction-transforming element that is
~~designed for being oscillated by the oscillation drive, or coupling means for coupling~~
~~such a treatment instrument (2) or implant (5) to the device.~~

13. (Cancelled)

14. (Cancelled)

15. (Cancelled)

16. (Currently Amended) The device according to claim 14~~12~~, wherein the
amplitude-transforming and/or direction-transforming element (20) has the shape of
~~one of~~ a beam, a ring and/or a hollow body.

17. (Currently Amended) The device according to claim 16, wherein the
treatment instrument (2) or the implant (5) is fastened to an outside surface of the
amplitude-transforming and/or direction-transforming element (20).

18. (Currently Amended) The device according to claim 16, wherein the
amplitude-transforming and/or direction-transforming element (20) is annular or has
the shape of hollow-body and wherein the treatment instrument (2) or implant (5)~~that~~
~~the treatment instrument (2)~~ is fastened to an inner surface of the amplitude-
transforming and/or direction-transforming element (20) and ~~projects~~protrudes from
the element (20) through an opposite opening (35).

19. (Currently Amended) The device according to claim 12, wherein theA
treatment instrument (2) or implant (5) comprises in the region of a distal end, for
~~carrying out the method according to claim 1, wherein the instrument or implant is~~
~~designed as an oscillation body, a proximal end of said instrument or implant~~
~~comprises means for a fixed or releasable coupling or is connected or integrally~~
~~formed to an amplitude-transforming and/or direction-transforming element (20) or~~
~~comprises a proximal contact surface designed for oscillation coupling, and wherein~~
~~the instrument or implant comprises in the region of a distal end contact surfaces~~
(15) for contacting the wound surface, said contact surfaces being provided with
energy directors (16).

20. (Currently Amended) The device according to claim 19, treatment
~~instrument or implant according to claim 19,~~ wherein the energy directors (16) have
the shape of tips or edges projecting from the contact surface (15).

21. (Cancelled)

22. (Cancelled)

23. (Currently Amended) The ~~treatment instrument or implant~~device
according to claim 20, wherein the energy directors (16) have the shape of edges
(11) running in a spiral or axial manner and designed to furrow the wound surface on
positioning the instrument or implant.

24. (Currently Amended) The ~~treatment instrument or implant~~device according to claim 23, wherein the treatment instrument or the implant comprises~~further comprising~~ a distal tip (40) and joined on the tip (40), a plurality of essentially cylindrical or conical regions (41) with diameters getting larger with an increasing distance to the tip (40), wherein the tip (40) and the cylindrical or conical regions (41) are provided with axially running, furrowing edges (11), and wherein steps between the cylindrical or conical regions (41) are likewise configured as furrowing edges (42).

25. (Currently Amended) The ~~treatment instrument or implant~~device according to claim 23, wherein the treatment instrument or the implant is essentially conic and at least partially comprises axially extending edges and edges extending around at least a part of an instrument or implant circumference.

26. (Currently Amended) The ~~treatment instrument or implant~~device according to claim 25, wherein the edges extending around at least a part of the instrument or implant circumference are at least partially undercut and/or comprise a clearance angle.

27. (Cancelled)

28. (New) A method for promoting tissue regeneration on wound surfaces (1), in particular on wound surfaces which are to intergrow with other wound surfaces

or with an implant, or are to heal into a tissue surface, the method comprising the steps of:

contacting the wound surfaces with a treatment instrument (2) or with the implant, and

coupling mechanical oscillation into the wound surfaces (1) by mechanically oscillating the treatment instrument or implant with the aid of an oscillation drive and an amplitude-transforming and/or direction-transforming element (20) having the shape of a ring or a hollow body and being coupled to the oscillation drive,

wherein the treatment instrument or implant is attached to an inner surface of the amplitude-transforming and/or direction-transforming element and protrudes from the amplitude-transforming and/or direction-transforming element (20) through an opposite opening.

29. (New) The method according to claim 28, wherein the mechanical oscillation is ultrasonic oscillation having a frequency of 1 to 200 kHz.

30. (New) The method according to claim 28, wherein, in the step of contacting, a contact surface of the treatment instrument (2) is brought into contact with the wound surface (1), and wherein, during the step of coupling, the treatment instrument (2) is moved in relation to the wound surface.

31. (New) The method according to claim 28, wherein, in the step of contacting, a contact surface of the implant (5) is brought into contact with the wound surface (1), and wherein, during the step of coupling, the implant is moved into a

final implanted position.

32. (New) The method according to claim 28, wherein the implant (5) is positioned in an opening of the tissue and is then set into oscillation.

33. (New) The method according to claim 28, wherein the wound surface (1) is a bone tissue surface.

34. (New) A device for promoting tissue regeneration on wound surfaces (1), in particular on wound surfaces which are to intergrow with other wound surfaces or with an implant, or are to heal into a tissue surface, wherein mechanical oscillation is coupled into the wound surface with the aid of a treatment instrument or the implant, the device comprising an oscillation drive, an amplitude-transforming and/or direction-transforming element (20), and the treatment instrument (2) or the implant (5), wherein the amplitude-transforming and/or direction-transforming element has the form of a ring or a hollow body and comprises an attachment site on its inner surface and an opening opposite the attachment site, and wherein the treatment instrument or the implant is attached or attachable in the attachment site to protrude from the amplitude-transforming and/or direction transforming element through said opening.

35. (New) The device according to claim 34, wherein the amplitude-transforming and/or direction-transforming element (20) comprises a plurality of coupling locations in which it can be coupled selectively to the oscillation drive.

36. (New) The device according to claim 34, wherein the treatment instrument or implant comprises in the region of a distal end contact surfaces 915) for contacting the wound surface, said contact surfaces being provided with energy directors (16).

37. (New) The device according to claim 36, wherein the energy directors (16) have the shape of tips or edges projecting from the contact surface (15).

38. (New) The device according to claim 36, wherein the energy directors (16) have the shape of edges (11) running in a spiral or axial manner and designed to furrow the wound surface on positioning the instrument or implant.